

CENTER HILL DAM SAFETY UPDATE

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October 2016 HPR



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Center Hill Dam Safety Project

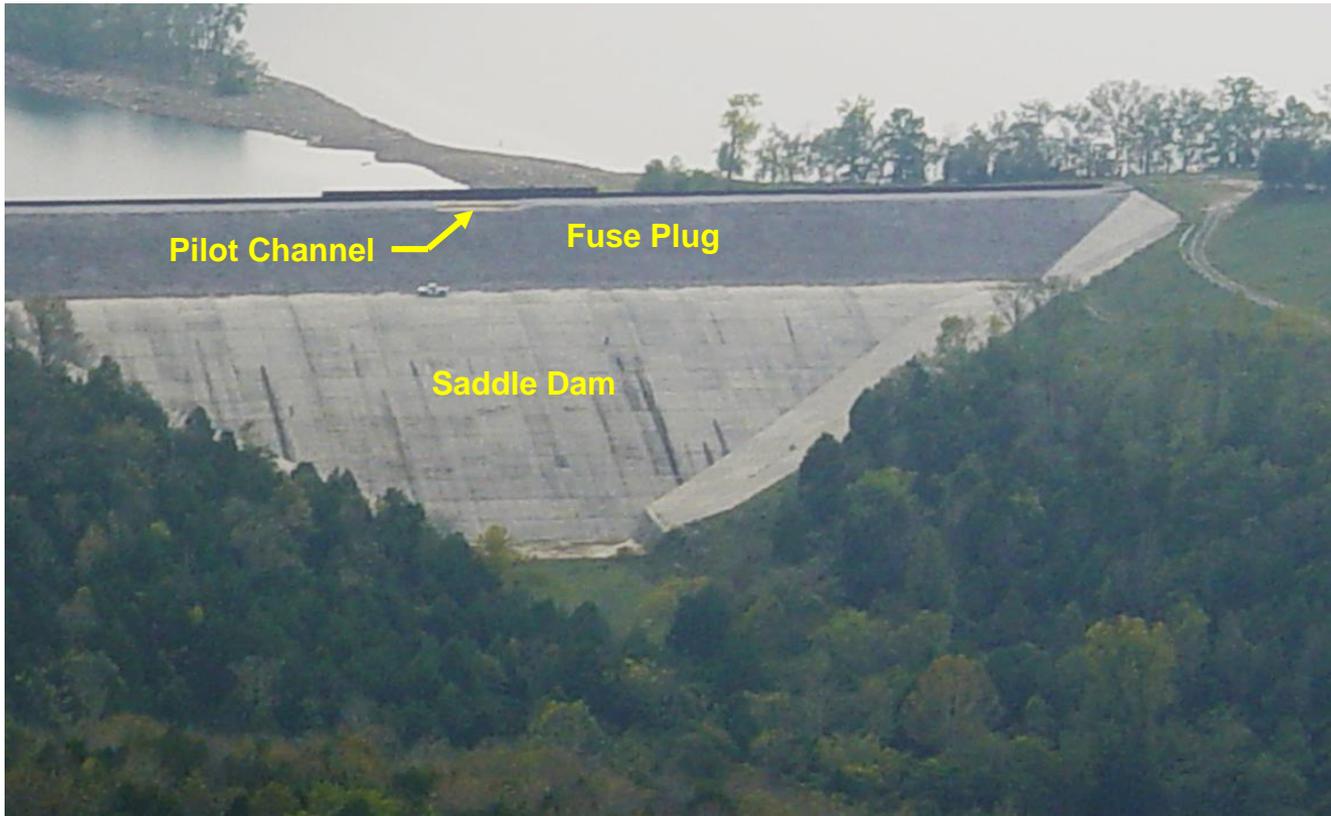


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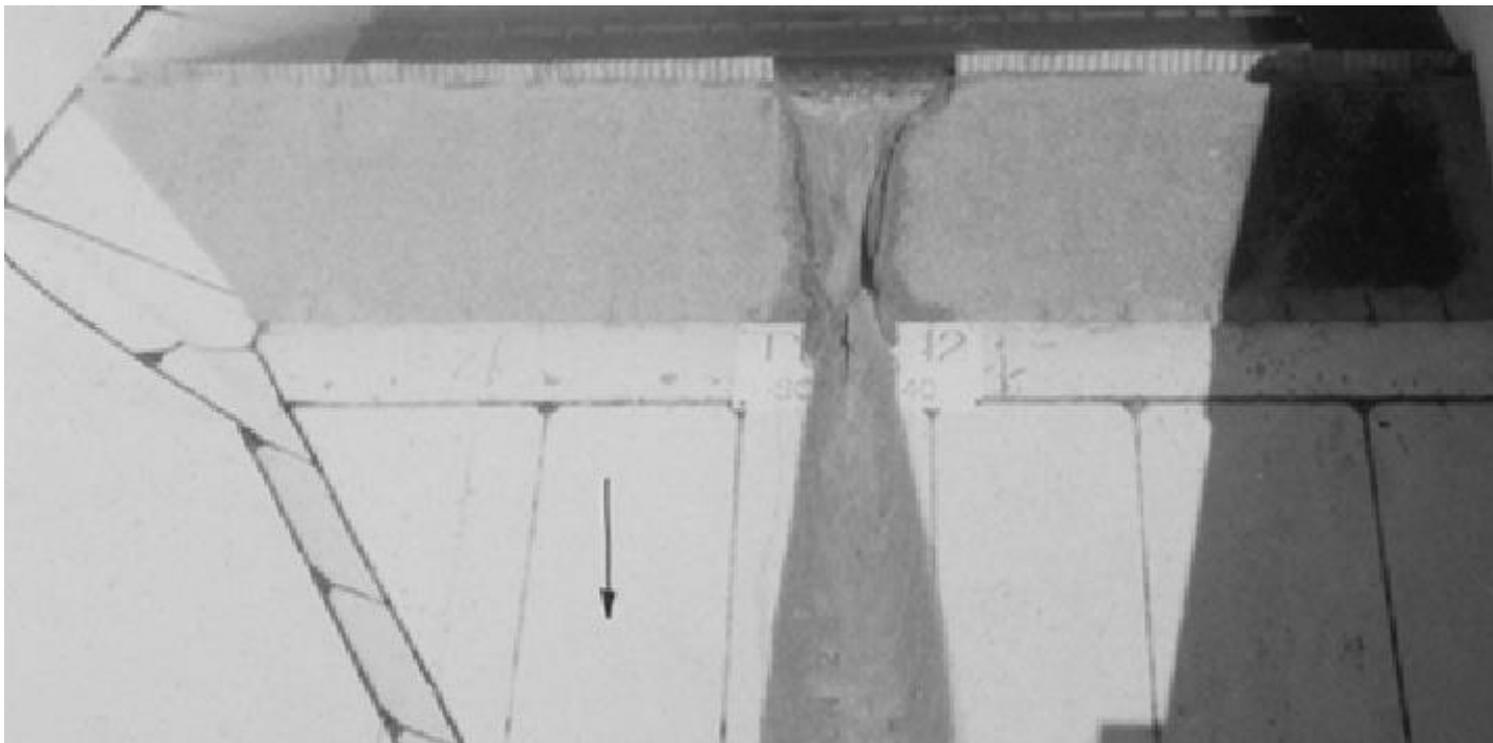


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Saddle Dam and Fuse Plug



Fuse Plug Operation



- Fuse plug overtops about Elevation 692
- Designed to fully erode/operate in 30 minutes during the Design Flood

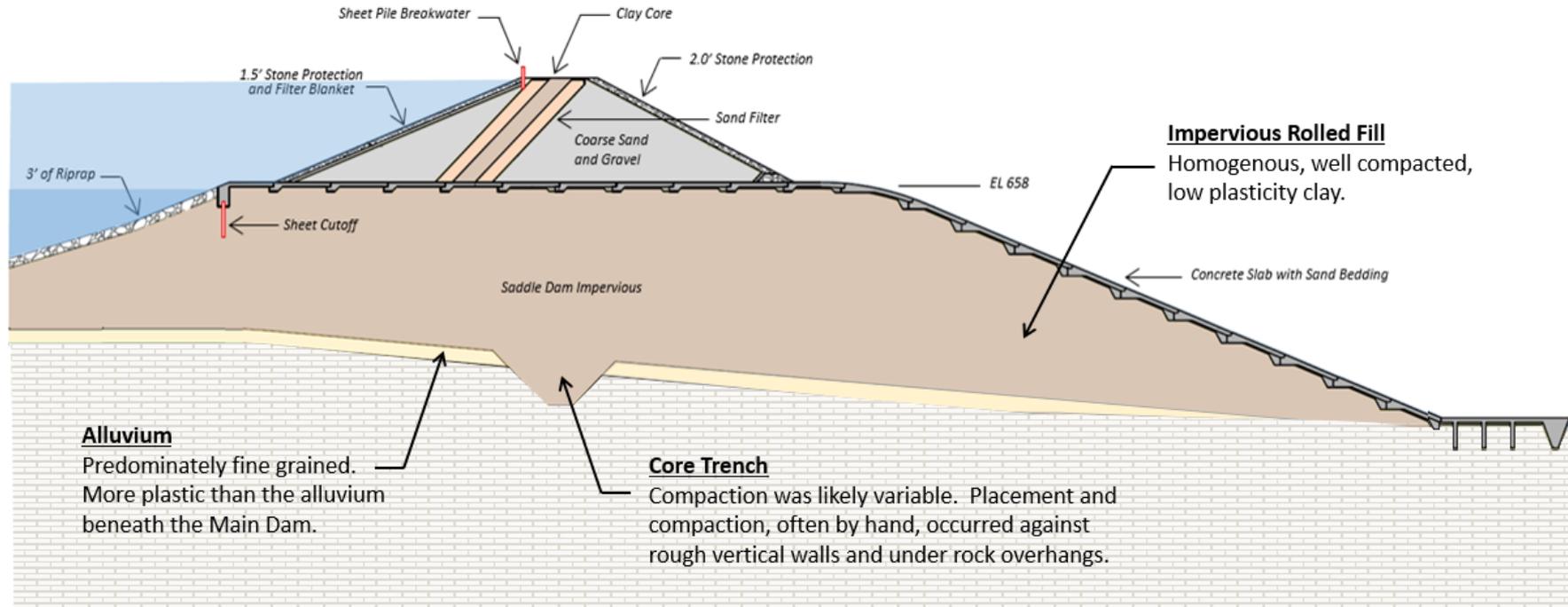
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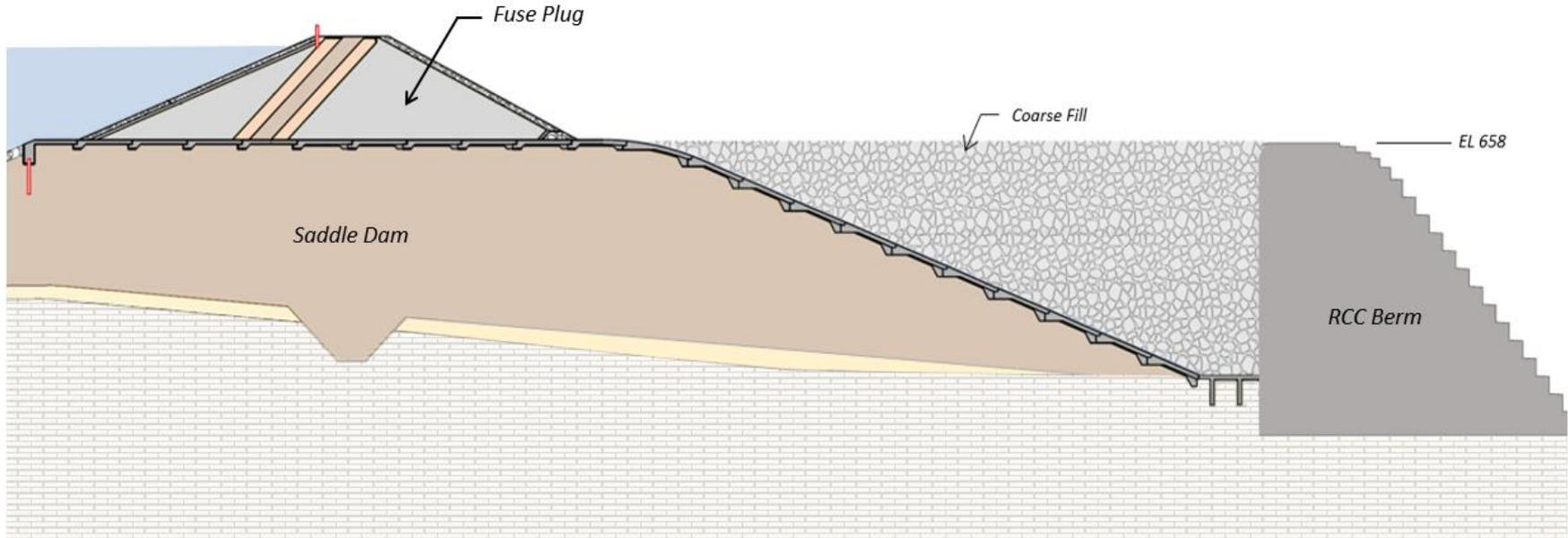


Saddle Dam and Fuse Plug – Cross Section



Saddle Dam Future Condition – RCC Berm

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- **RCC Berm contract began- September 2016**
- **Current Completion- April 2019**
- **Foundation Prepared/RCC Start- May 2018**

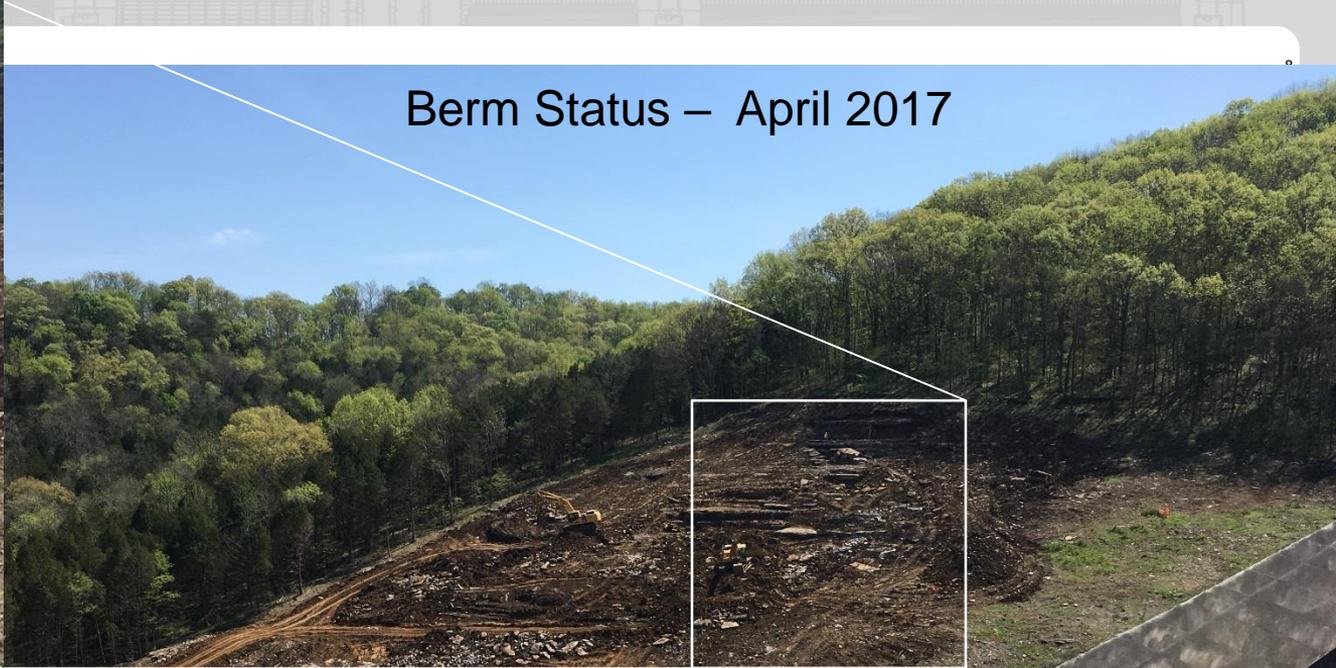
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Berm Status – April 2017



Berm Status – September 2017



Spillway Tainter Gates



Fuse Plug Doubles the Project's Spillway Capacity



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Project Residual Risk and Gate Operability Issues:

- **Must Reliably Open (electrical issues)**
- **Must Remain Opened during Flood Event**
- **If not, Fuse Plug operates at smaller Flood Event**



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What are we doing to address Gate Operability Issues?

- **Supplemental Modification Study**
- **Interim Risk Reduction Measure asap -\$5.9M**
 - Electrical Feeder Lines & Switchgears
 - Mechanical Component Rehabilitation
 - Set Powerhouse Bulkheads
 - Backup Generator



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What else can we do?

- **IRRM- Emergency Operation changes**
- **Monetize Lost Benefits, Compare to Increased Risk: Tradeoff Justification**



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Lake Raise Contingent Upon:

- ✓ **Berm Foundation Prepared- March 2018; Completed- May 2019**
- ✓ **Bat Habitat Assessment- (Assess in 2019)**
- **Concurrence of Corps' Senior Dam Safety Officials**
 - **IRRM- Electrical replacement & rehab- 2018/2019**
 - **Results of Gate Study**
 - **Potential for Operational Changes**
 - **Tradeoff Justification**



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